Navigational Programming

by
Lei Pan
JPL - Section 387

Thursday, November 18, 2004
12:00 noon – 1:00 p.m.
Building 126, Room 225

Navigational programming (NavP) is the programming of self-migrating threads. Computation mobility enabled by thread migration techniques provides an alternative view (namely, the Lagrangian view) of distributed computations under which scalable parallel applications are developed easily and maintained with less cost. In this talk, I am going to start with the parallelization of a simple sequential program using NavP, and compare our solution with the one using the prevailing Message Passing (MP) approach. I will then provide insight to the two different views provided by NavP and MP, and point out their advantages and disadvantages. The steps of the NavP methodology are outlined, followed by the presentation of case studies. I will end the talk with the status of the project and the potential impact of NavP.

For questions, please contact Dan Katz at 4-7359.